

# C12/24/48

## CUTTING PLOTTER

**Foison**

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## Preface

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### Preface

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## Preface

Thank you for buying our FOISON cutter plotter.

In the C series cutter user's manual, it includes the cutter features, parts name, and the necessary information prior operating, and the basic operation, such as how to turn on/off the electricity, how to set the cutter etc.

Prior reading the content, please read the following items

- Parts listing
- Safety precautions

In order to use the cutter correctly and safely, please read above relative contents, and leave the manual at where you can catch conveniently.

Prior operating the FOISON cutter, please thoroughly read the manual, which will help you acquire performance of the machine and make best of its functions, please keep the manual well for future reference.

Without our permission, any individual or organization shall not duplicate or promulgate the contents of this manual.


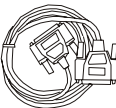


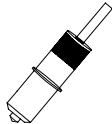

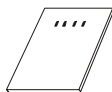
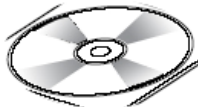
We reserve the rights to amend this manual or specification of the products without advising you. If you need precise technical information, welcome to call us or visit to our website [www.foison.net.cn](http://www.foison.net.cn) to acquire the latest information.

We have made great effort to accurate our manual, if you find anything wrong in printing or other respects, please do not hesitate to notify us or local agent of our company.

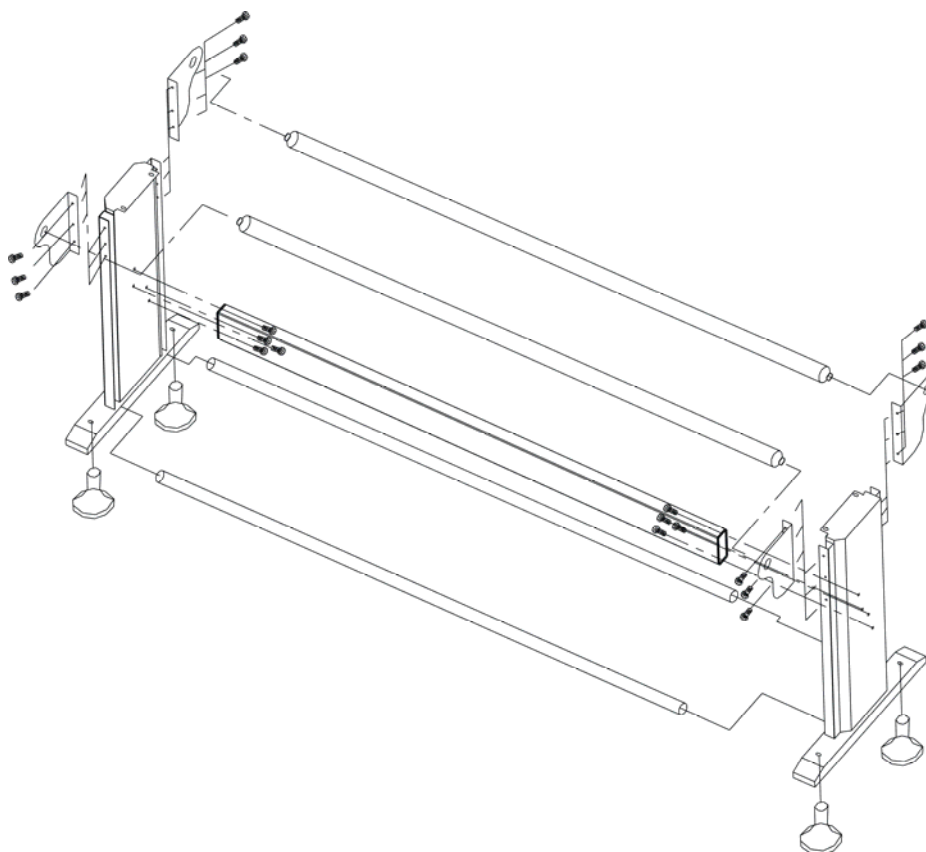
## Chapter One Standard Parts

The following cutter standard accessories with the cutter can be available in a packing box. If you find any damaged, please contact with the local distributor or our company. The other following optional accessories should be ordered optionally.

### 1.1 Standard Accessories with Cutter

| Number | Item                            | Quantity | Icon  |
|--------|---------------------------------|----------|---|
| 1      | Power cable                     | 1        |     |
| 2      | Signal cable                    | 1        |    |
| 3      | USB cable                       | 1        |    |
| 4      | Rotary tool apron               | 1        |  |
| 5      | Plot pen                        | 1        |  |
| 6      | High-speed tungsten steel knife | 3        |  |
| 7      | Operating manual                | 1        |  |
| 8      | USB software Driver             | 1        |   |

### 1.1.2 C48 Sketch for Vertical Stands Installation



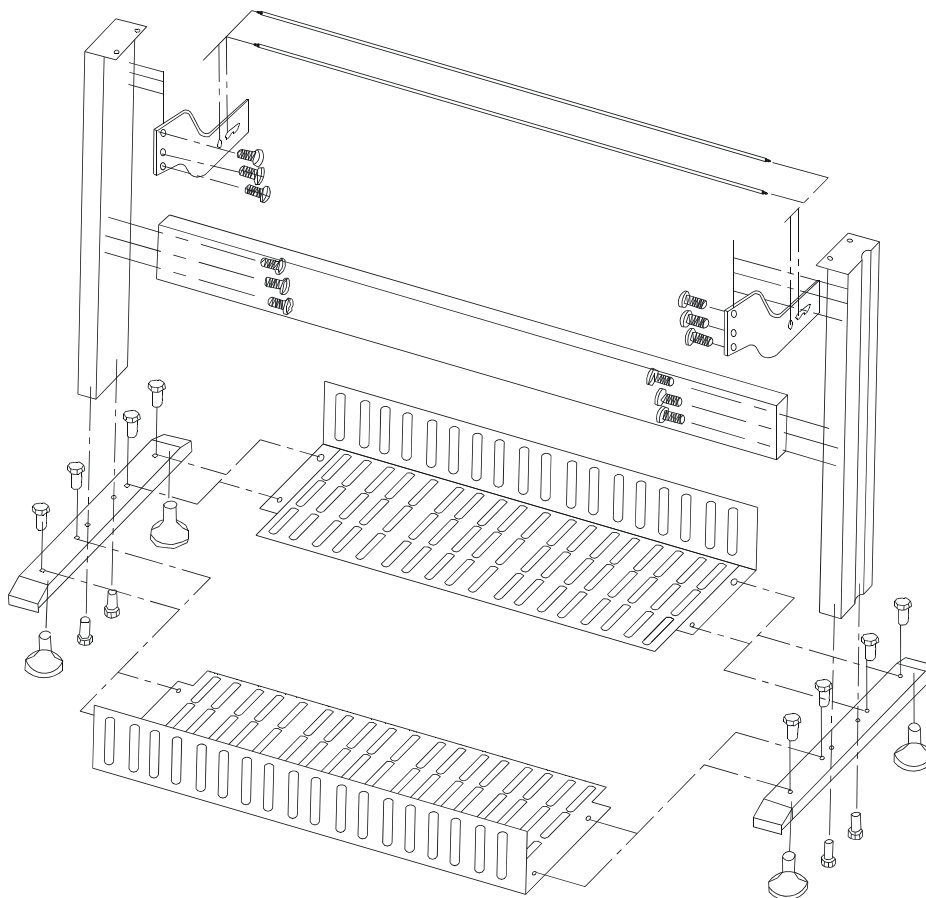
Only C48 is equipped with stand, the stands is optional for C24

## 1.2 Optional Accessories

### 1.2.1 Software

| Number | Item                   | Quality | Icon |
|--------|------------------------|---------|------|
| 1      | Artcut Software        | 1       |      |
| 2      | Flexi Software         | 1       |      |
| 3      | PCSIGN Letter Software | 1       |      |

### 1.2.2 C24 Stand Installation Sketch



Only C48 is equipped with stand, the stand is optional for C24

### Introduction for the common used tool and its usage



| Icon | Series Number | Angle | Application |
|------|---------------|-------|-------------|
|      |               | 45°   | C12/24/C48  |
|      |               | 60°   | C12/24/C48  |

## Chapter Two Safety Precaution





The following icons are used in the manual; aims to make sure the user operate the cutter properly to avoid damaged the cutter. Please comply with the explanation of the icon.

### 2.1 Safety Precaution

#### Definition of Warning Symbols :


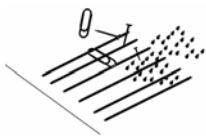
|   |         |   |
|---|---------|---|
|  | WARNING | serious casualty :<br>Any improper operation possibly results in hazard of life .   |
|  | CAUTION | Light hazard in life or equipment damaged:<br>Any improper operation possibly results in hazard Of life or the equipment. |

#### Definition of Warning Symbols :




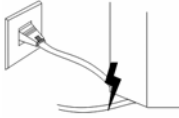

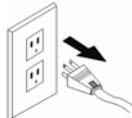





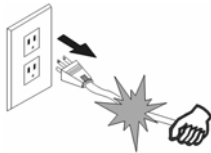

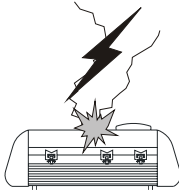
|   |   |  |
|---|---|--|
|  | The symbol “△” is prepared to arouse operator's highly attention when in process.   |  |
|  | The symbol “⊘” specifies the activities to be forbidden.  |  |
|  | The symbol is prepared to arouse operator's highly attention. The symbols in triangles specify the cases to be attentive. The symbol in the left warns you of electric shock. |  |
|  | The symbol specifies the activities to be forbidden. The symbol in the circle specifies the acts to be forbidden. The symbol in the left tells you no detachment.             |  |



#### Caution

|   |  |  |
|---|--|--|
|  | Do not leak any liquid or drop metal into the machine, such things may result in fire. |  |
|---|--|--|



|   |  |   |
|---|--|---|
|    | Do not touch the knife top with your finger to prevent injury or perspiration of knife head.   |     |
|    | Do not damage or random replace the supplied power cable. Do not excessively bend, pull, bundle the power cable or place weight on it, otherwise the power source may be damaged even fire or electric shock is thus incurred. |    |
|    | If you are not going to use the machine for a long time, please unplug the power cable from the receptacle, otherwise fire possibly happens.   |    |
|    | When operating the machine, do not place either of your hands on capstan to avoid injury.  |   |
|  | Place the machine on a stable surface, otherwise the machine may fall therefore get damaged.   |   |
|  | To unplug the power cable from receptacle, please hold the plug instead of the cable, strongly pulling of the cable possibly results in electric shock or fire.  |   |
|  | Any operation is forbidden in case of storm or lighting to prevent damaged of machine.   |  |

**Warning**

|  |  |
|--|--|
|  | Do not use the power source not meeting rating voltage, otherwise fire or electric shock may be resulted in.   |
|  | If the machine gives out smoke or unpleasing smell, or noise sounds please do not use it .in such cases, continuing using it may result in fire or electric shock. |
|  | Do not put out the plug when the power is on to avoid damage to the Machine.   |
|  | Make sure the machine grounded otherwise electric shock or mechanic default may be resulted in.  |

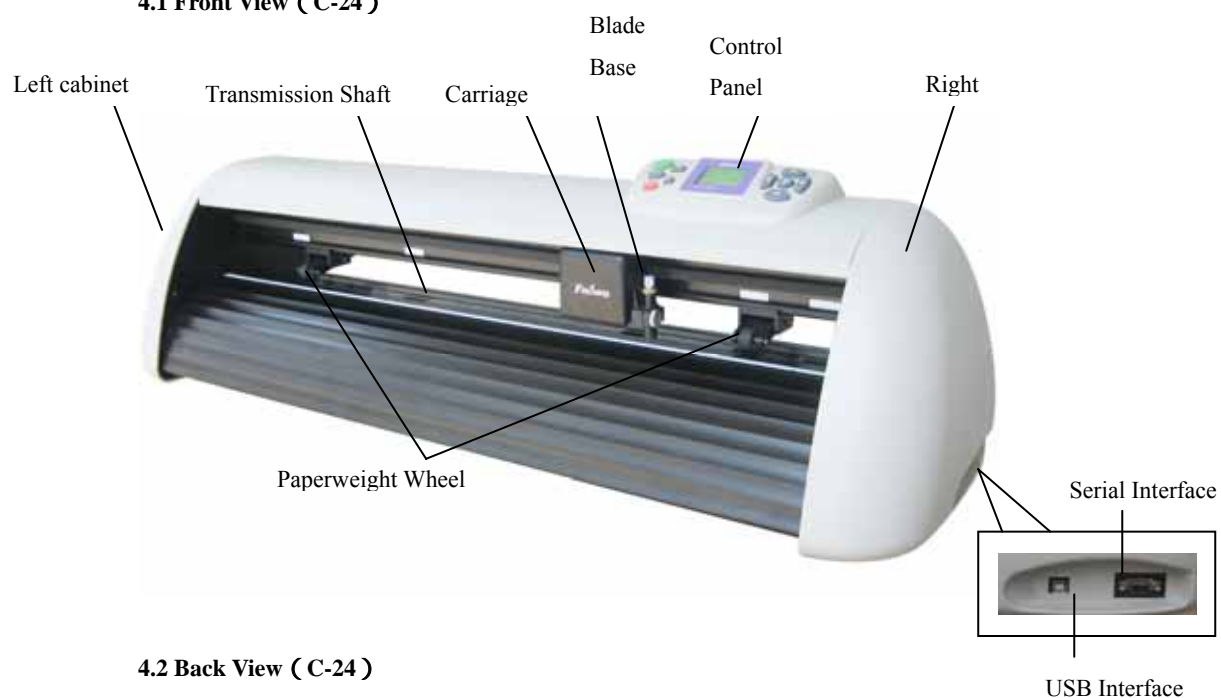
## Chapter 3 Features

### Product Parameters

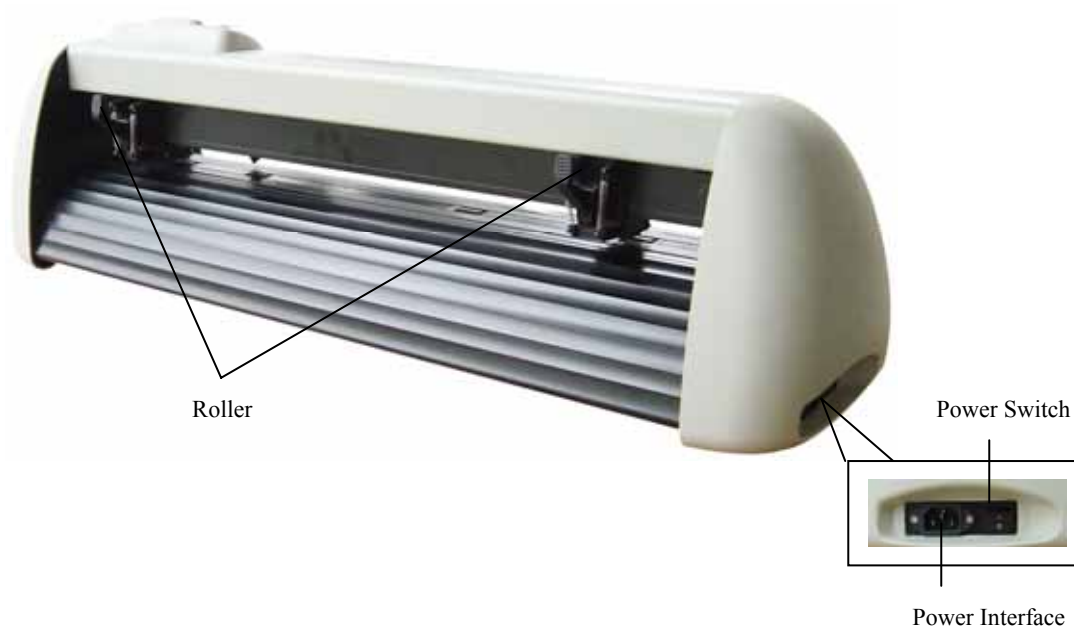
| Model                    | C-12  | C-24                          | C-48                 |
|--------------------------|---|-------------------------------|----------------------|
| structure                | desktop   | desktop    /(optional stands) | Stands (with stands) |
| Accept    media width    | 415mm   | 720mm                         | 1300mm               |
| Max cutting width        | 305mm   | 610mm                         | 1220mm               |
| Main board               | High speed Arithmetic Microprocessor, 1MB cache |                               |                      |
| Interface                | RS232,USB                                       |                               |                      |
| Control penal            | 10silica gel buttons                            |                               |                      |
| Driver                   | Digital DC, step motor, Micro-step Driver       |                               |                      |
| Display                  | 4*8 high resolution LCD                         |                               |                      |
| Drawing instruction      | HP-GL , DMPL                                    |                               |                      |
| Max cutting speed        | 600mm/s   |                               |                      |
| Max    cutting thickness | 20g~300g ( digit adjustable )                   |                               |                      |
| Mechanical precision     | 0.025mm   |                               |                      |
| Repeatable precision     | < ±0.1mm  |                               |                      |
| Power supply             | AC90~240V/50Hz~60Hz                             |                               |                      |
| Positioning model        | Bounded system, random original point setting   |                               |                      |
| Working model            | Roller  |                               |                      |
| Operational environment  | +5    ~ +35    , relative humidity 30%~70%      |                               |                      |
| Net weight               | 8kg   | 11.5kg                        | 17kg                 |
| Gross weight             | 9kg   | 15kg                          | 32kg                 |
| Dimension                | 570*265*240                                     | 880*265*240                   | 1315*265*240         |
| Package Dimension        | 585*360*380                                     | 1030*360*380                  | 1530*360*380         |

## Chapter Four Parts Name and Function

### 4.1 Front View ( C-24 )



### 4.2 Back View ( C-24 )



### 4.3 Control Panel



- 1、 LCD ( LCD ) Display
- 2、 Paper Feeding Button : it is X direction button under offline; it is value“-”under parameter menu.
- 3、 Original Setting Button: Press such button to fix the coordinate point under offline.
- 4、 Rightward Button : it is Y direction button under offline; it is value“-”under parameter menu.
- 5、 Paper Withdrawal Button : it is X direction button under offline; it is value“+”under parameter menu.
- 6、 Leftward Button: it is Y direction button under offline; it is value“+”under parameter menu.
- 7、 Pause Button: Switch to pause/resume model under online working.
- 8、 Repeat Button : to repeat last job.
- 9、 Menu Button: Switch to online and menu model.
- 10、 Online Button: Switch to online and offline model.
- 11、 Testing Button: (Press for a short time) to upper and down the knife; or (press for a long time) to test a rectangle itself.

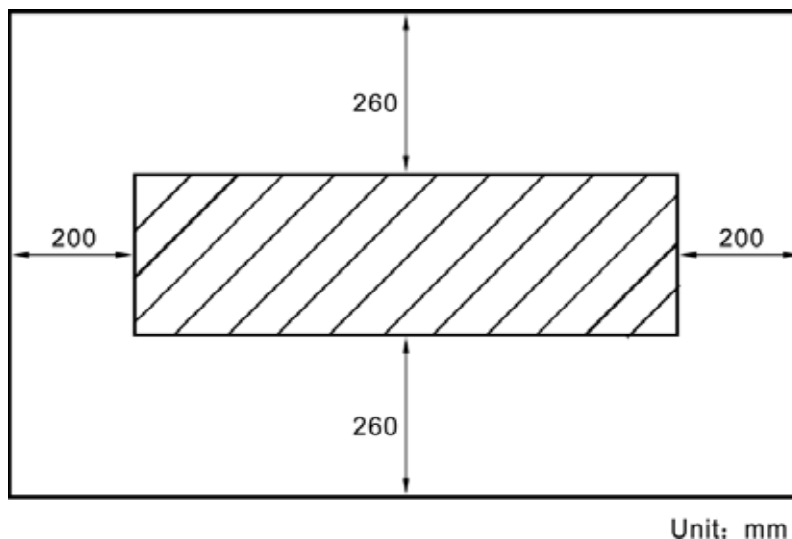
## Chapter Five Cutter Installation

### 5.1 Installation and Connection

#### 5.1.1 Cutting Environment

Place the cutter in adequate space in case to replace some parts, output the media and make sure ventilation.

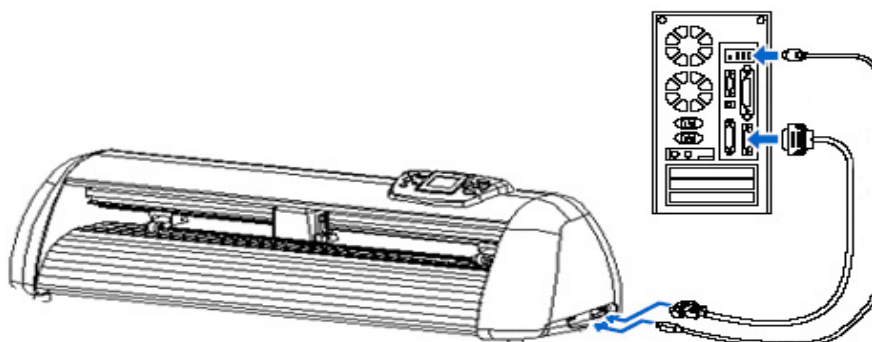
■ The place for installing the cutter shown as below



Don't install your cutter in the following place

- The place where is direct sunlight
- The place where is vibration
- The place where is full dust
- The place where is draught

#### 5.1.2 Connect signal cable to the PC

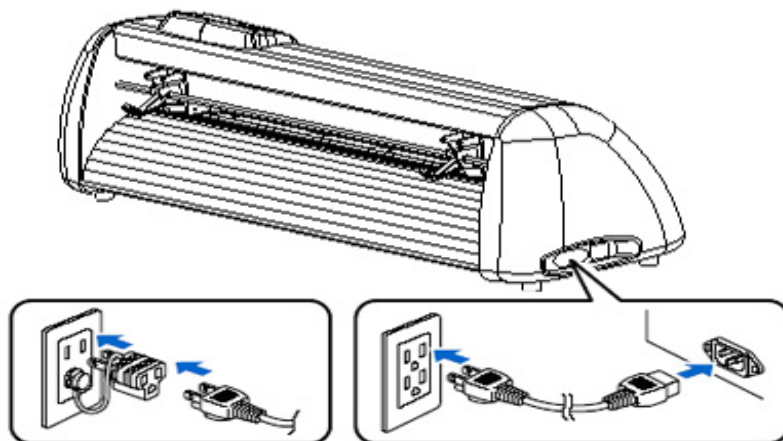


To make the connection between the cutter and the computer, you are offered two possibilities: RS232 and USB interface. For USB connection, you need to install the driver equipped with the cutter first. (Please refer to 5.1.3)

### 5.1.3 USB Driver Installation

For USB connection, you need to install the driver equipped with the cutter. Please install CH341SER.EX file under USB DRIVER in the disk equipped with the cutter. After installing successfully, connect the USB cable to computer USB port. Set the right port; please refer to the appendix for setting the port.

### 5.1.4 Power Cable Connection



## 5.2 Cutting Media Installation

### ■ Cautions of Media Preservation

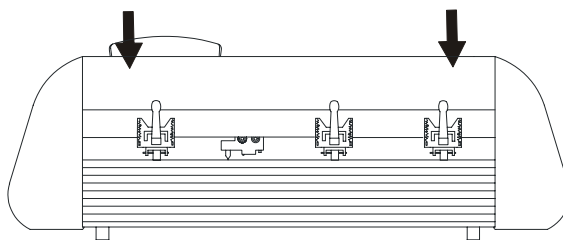
- Keep the media away from direct sunlight and water when before and after unpacked.  
You should keep the media in dry, shady and cool place after using it.
- Do not put the media in the vertical position, to avoid mess and damage the edge of the media
- Do not print media in pile.

### ■ Cautions of Media Loading

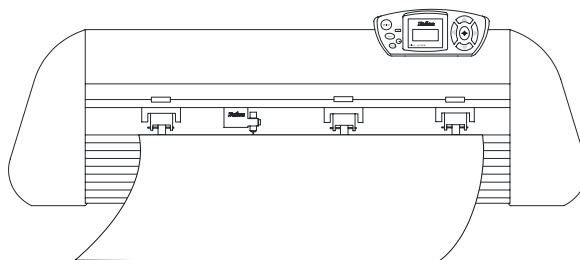
- Avoid the temperature and humidity changes after unpack the box.
- According to the media feature, when low temperature, media is easy to curl, when high temperature, it is easy to crease.
- Do not use the media when it is crease, curl or dusty.
- Do not fall or moisturize the media, otherwise it may effects the cutting quality or result in damaging the cutter.
- Before loading the media, you should roll the media.

### ■ The cutter is both suitable for single sheet media and roll media

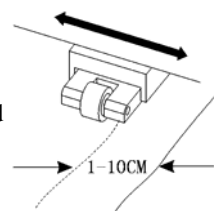
**5.2.1** Press down the handle of paperweight wheel behind the machine to raise the paperweight wheel.



**5.2.2** Insert the media into the space between paperweight wheel and main shaft, and pull out the media to appropriate length from the front of the host.



**5.2.3** Move the paperweight wheel to the white identified area, then adjust position of the media, a distance of about 1-10CM is set between paperweight wheel and media to ensure good running of media



The cutter adopts high-precision transmission shaft, and pay attention to the position of the paperweight wheel. The paperweight wheel must be fixed above the white identified area on the transmission shaft.

**5.2.4** Raise two handles of paperweight wheel, to make paperweight wheel down to press paper

### 5.3 Tools Installation



CAUTION



**Do not touch the knife top with your finger to preserve injury or passivation of knife head.**

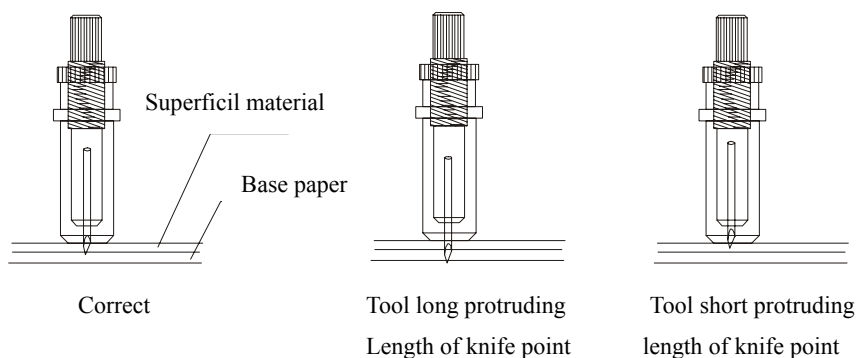


#### 5.3.1 Tool Introduction and Application

| Icon | Series Number | Angle | Application |
|------|---------------|-------|-------------|
|      |               | 45°   | C12/24/C48  |
|      |               | 60°   | C12/24/C48  |



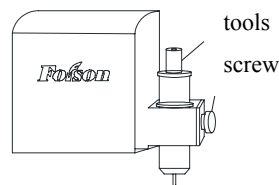
### 5.3.2 Adjust the protruding length of the knife top as required for specific cutting media



### 5.3.3 (1) Loosen the screw of tool carrier

(2) Assembly the tool with knife into the tool carrier

(3) When the tool is in appropriate position screw it and fix the screw.



### 5.3.4 Trial run (adjusting knife press and tool)

Quality of knife immediately relate to cutting precision and life of machine. To better your work, please use the standard knives we confirm, but not those with poor quality.

5.3.4.1 Press "Online" button to make the machine Offline.

5.3.4.2 While it's offline, press "TEST" twice, the machine will automatically cut a small square from the media.

5.3.4.3 Take off the square, if you fail, the square need to be further cut, because the press is low or the protruding length of knife top is too short; If the base paper is pierced through, it signifies that the protruding length of knife top is too long and the press is too big. Adjust the protruding length of knife top and knife press according to result of trial run and the description of tool installation. The most appropriate protruding length of knife top and knife press is to cut the media exactly but not pierced through.

5.3.4.4 Press "+" or "-" to adjust knife press, for common media the knife press value ranges from 200 to 300.

### 5.4 Plot Pen Installation.

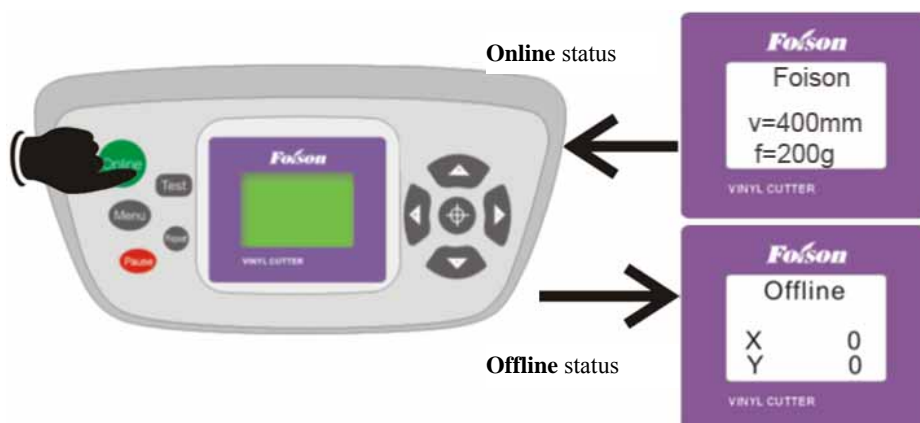
The plot pen presented with the cutter is used for drawing on the media. The operation method is the same as the above blade holder.

## Chapter Six General Settings and Operation

### 6.1 Work Status Descriptions

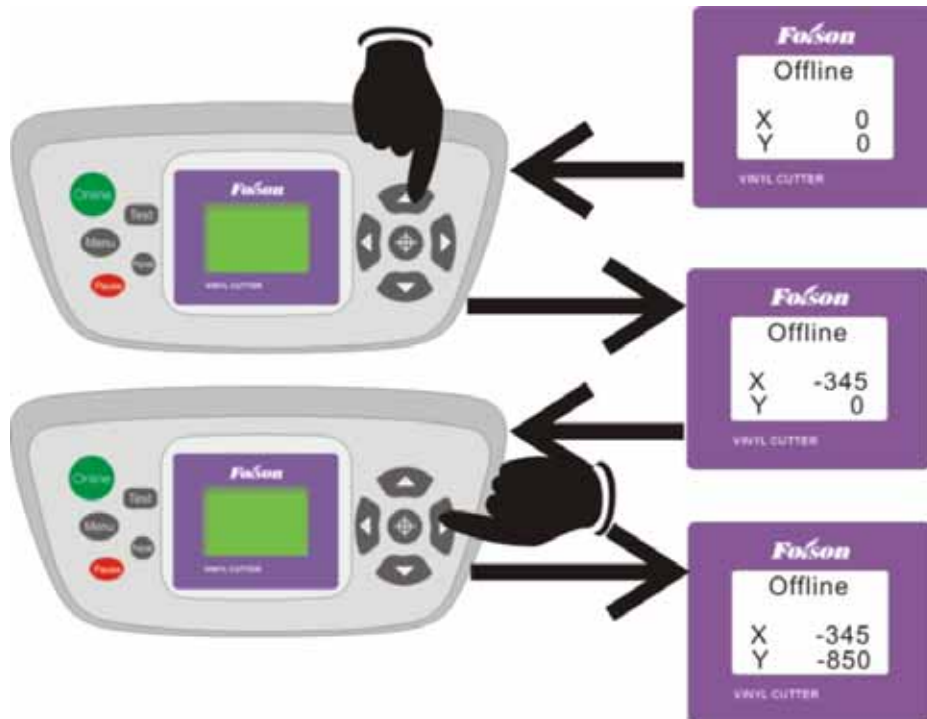
#### 6.1.1 Online/Offline

When the cutter is switched on, it will reset and set to **Online** status. Press “**ONLINE**” to switch **Online/Offline** status. When the cutter transmits data to PC, the cutter must be in **Online** status. But if you need to change the parameters of the cutter or operate manually, the cutter shall be in **Offline** status. The LCD shown as followings:



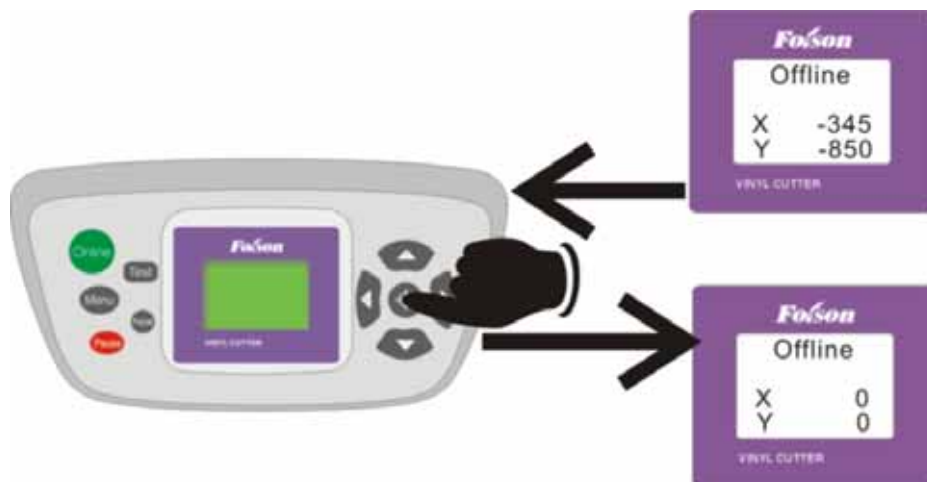
#### 6.1.2 Carriage Movement

When the cutter is **Offline** status, press “◀▶”, the carriage will move left and right. press“▲▼”, the main shaft will move back and for the at the same time the LCD will show X, Y step value respectively.

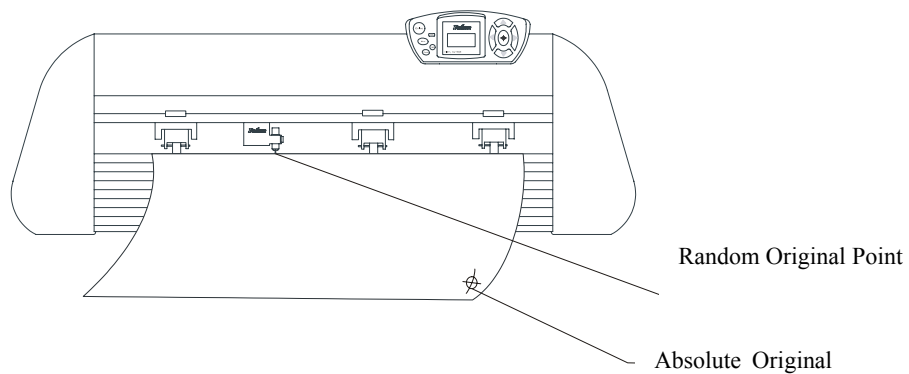


### 6.1.3 Original Point Setting

When the carriage needs to move to the original point, press “ $\oplus$ ”, X and Y value will set to “0”. Then the new original point is set. The cutter will begin working at the new original point.



The relationship between Absolute Original Point and random original point:

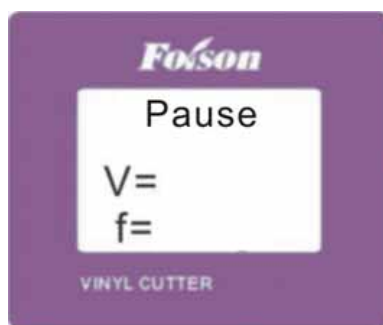


#### 6.1.4 Bounded system

The cutter adopts advance optical coupler bounded system. The following introduces how the optical coupler takes effect.





1. Move the carriage to the left side of the cutter, if the cutter exceeds the work area, the optical coupler bounded system takes effect. It will prevent the carriage strike to the cutter side. Move the carriage to right the bounded system will lose effect.
2. When the cutter is working, if the work area set in the software is too large and cause the carriage move to the left and exceed the work area, the bounded system will activate automatically. The cutter will stop working and the LCD displays Pause (shown as followings). The cutter shall restart and current job can be neither save or continue working.

Hints: In the software, please don't set the work area that exceeds the effect work area. Also please pay attention to position between the original point and left side of the cutter to prevent the bounded system takes effect.







#### 6.2 Online Keyboard Function Definition





##### 1<sup>st</sup> Level Menu Keyboard Definition

| Button  | Function               | Description  |
|---|------------------------|--|
| Online  | Online/Offline         | Press once to switch to offline status   |
| Menu  | Menu Switch            | Press once and enter into Setting menu   |
|  | Knife Force Increase   | Press once, the knife force increases by 20g.  |
|  | Knife Force Decrease   | Press once, the knife force decrease by 20g  |
|  | Cutting Speed Increase | Press once, the cutting speed will increase by 50mm/s  |
|  | Cutting Speed Decrease | Press once, the cutting speed will decrease by 50mm/s  |
| Pause   | Pause/Resume           | If either speed or knife force is not optimized, press <b>Pause</b> once to pause working, after adjusting, press once to resume working |
| Repeat  | Knife drop/raise       | Press once for knife dropping and press again knife raising  |

### Setting Mode Menu Definition






| Button  | Function            | Description                                       |
|---|---------------------|---|
| Menu  | Menu Switch         | Press once and enter into <b>Set Per</b> menu     |
|  | Baud Rate Increase  | Press once and increase to a defined baud rate    |
|  | Baud Rate Decrease  | Press once and decrease to a defined baud rate    |
|  | Idle Speed Increase | Press once the Idle Speed will increase by 50mm/s |
|  | Idle Speed Decrease | Press once the Idle Speed will decrease by 50mm/s |

### Set Per Menu Definition

| Button  | Function          | Description   |
|---|-------------------|---|
| Menu  | Menu Switch       | Press once and enter into <b>Online</b> status  |
|    | Increase Yp Scale | If the actual cutting scale is smaller than the image size from Y position, press this button will increase the size. |
|    | Decrease Yp Scale | If the actual cutting scale is larger than the image size from Y position, press this button will decrease the size   |
|   | Increase Xp Scale | If actual cutting size is smaller than the image size, press this button will increase the size.                      |
|  | Decrease Xp Scale | If actual cutting size is larger than the image size, press this button will decrease the size.                       |

## 6.3 Offline Status Description

### Offline Keyboard Function Definition

| Button  | Function                      | Description   |
|---|-------------------------------|---|
| Online  | Online/Offline                | Press once to switch to online status   |
|  | Y+, Left Direction Key        | Press and realize carriage move to left position  |
|  | Y-, Right Direction Key       | Press and realize carriage move to right position   |
|  | X+, Backwards Direction Key   | Press and realize main bearing move backwards   |
|  | X-, Forwards Direction Key    | Press and realize main bearing move forwards  |
|  | Original Position Setting Key | Press once will reset X,Y to "0", the current position will be the original position      |
| Test  | Press for <b>One</b> Second   | Draw/cut a tiny square  |
| Test  | Press for <b>Two</b> Seconds  | Draw/cut a test pattern   |
| Pause   | Pause/Resume                  |   |
| Repeat  | Repeat Last Time Work         | When the cutter finish working, press this key on offline status will repeat the same job |



The left and right herein refer to the person stands in front of the cutter. The object is subject to the person's direction.

## 6.4 Menu Operation Description

### 6.4.1 Power on Display

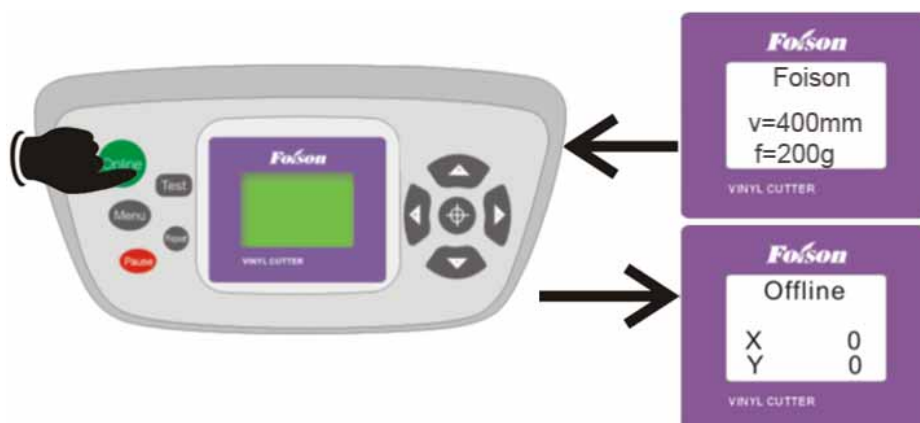


Ver 120: The cutter program version is 120

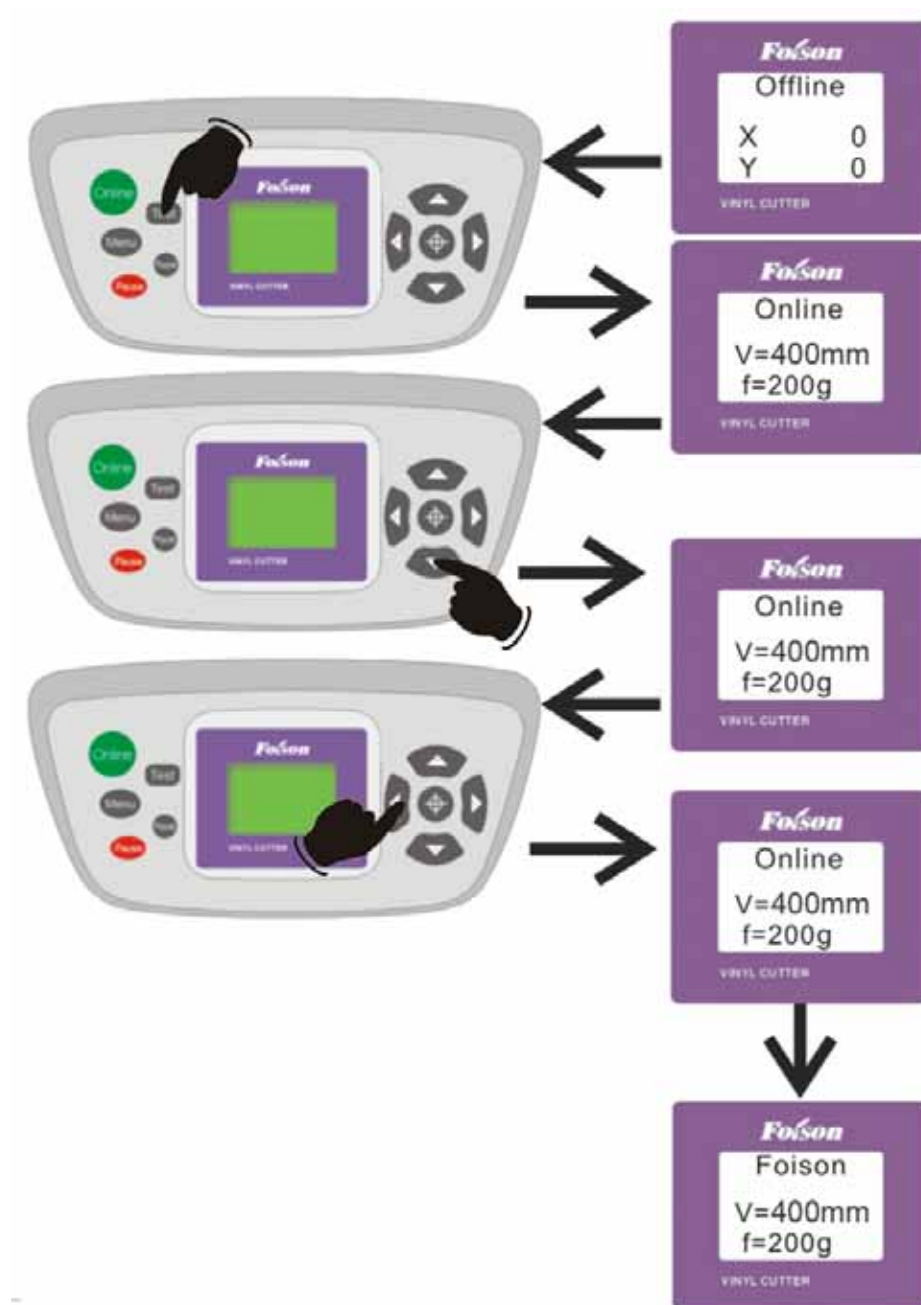
The default value: Speed  $V=400\text{mm}$ , Knife Force  $f=200\text{g}$ .

### 6.4.2 Online/Offline Operation

When the cutter switch on the first time, it will initialize and then the cutter will be in Online status. Press "ONLINE" can switch it into Online/Offline status. When cutter transmits data to computer, the cutter must be Online. While it needs to set cutter's parameters and manual operation, it must be Offline. The LCD shows as followings:



## 6.4.3 Speed and Knife Force Setting

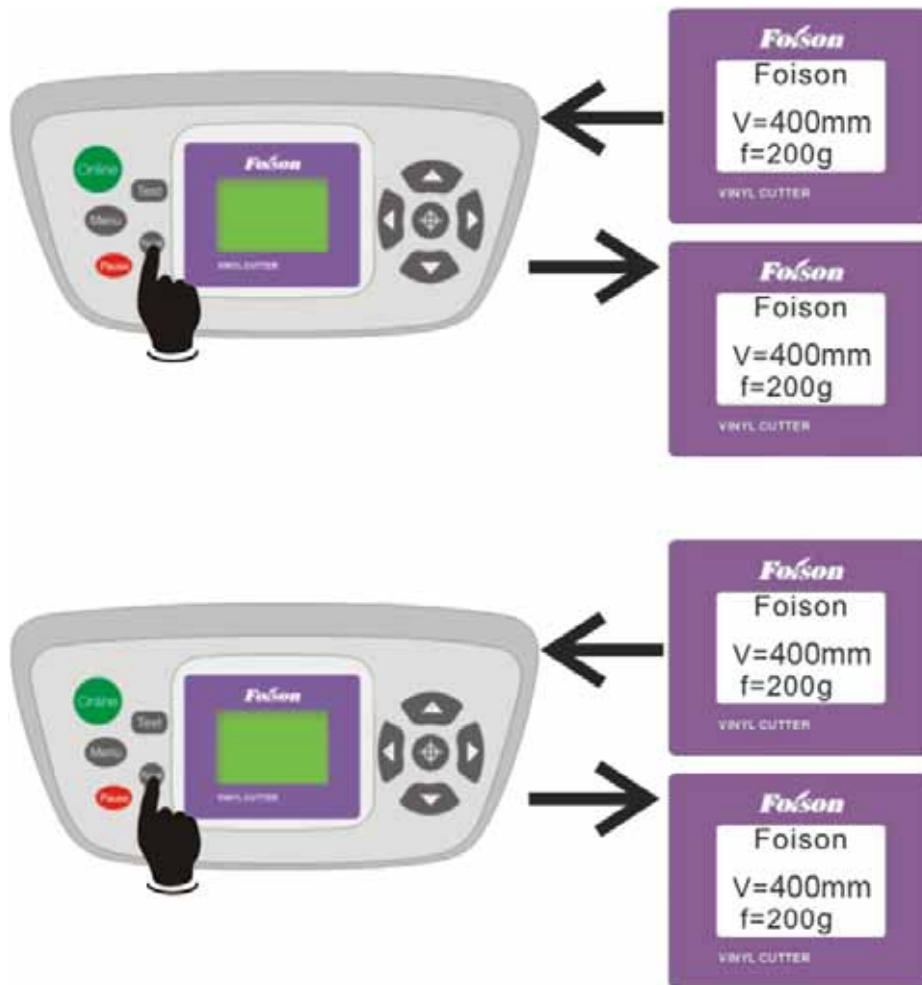


**6.4.4 Knife drop/raise Test**

Press Repeat to test knife drop/raise. Press once is knife drop and press once again knife raise.

Please refer to the media and examine the difference after changing the knife force.

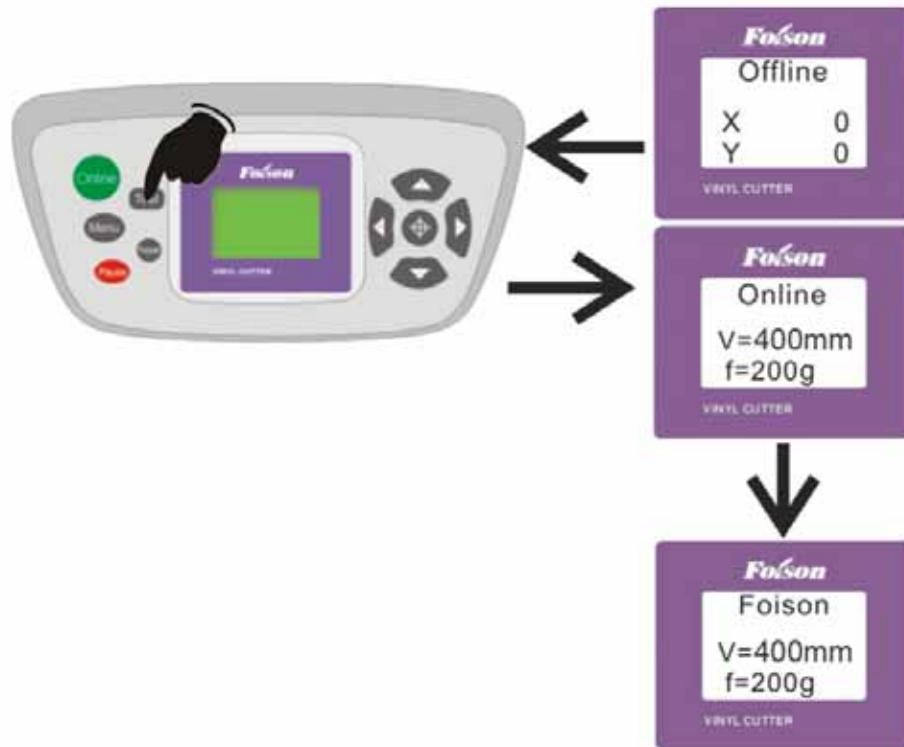
Hints: the difference effect can be seen after using normal knife force.





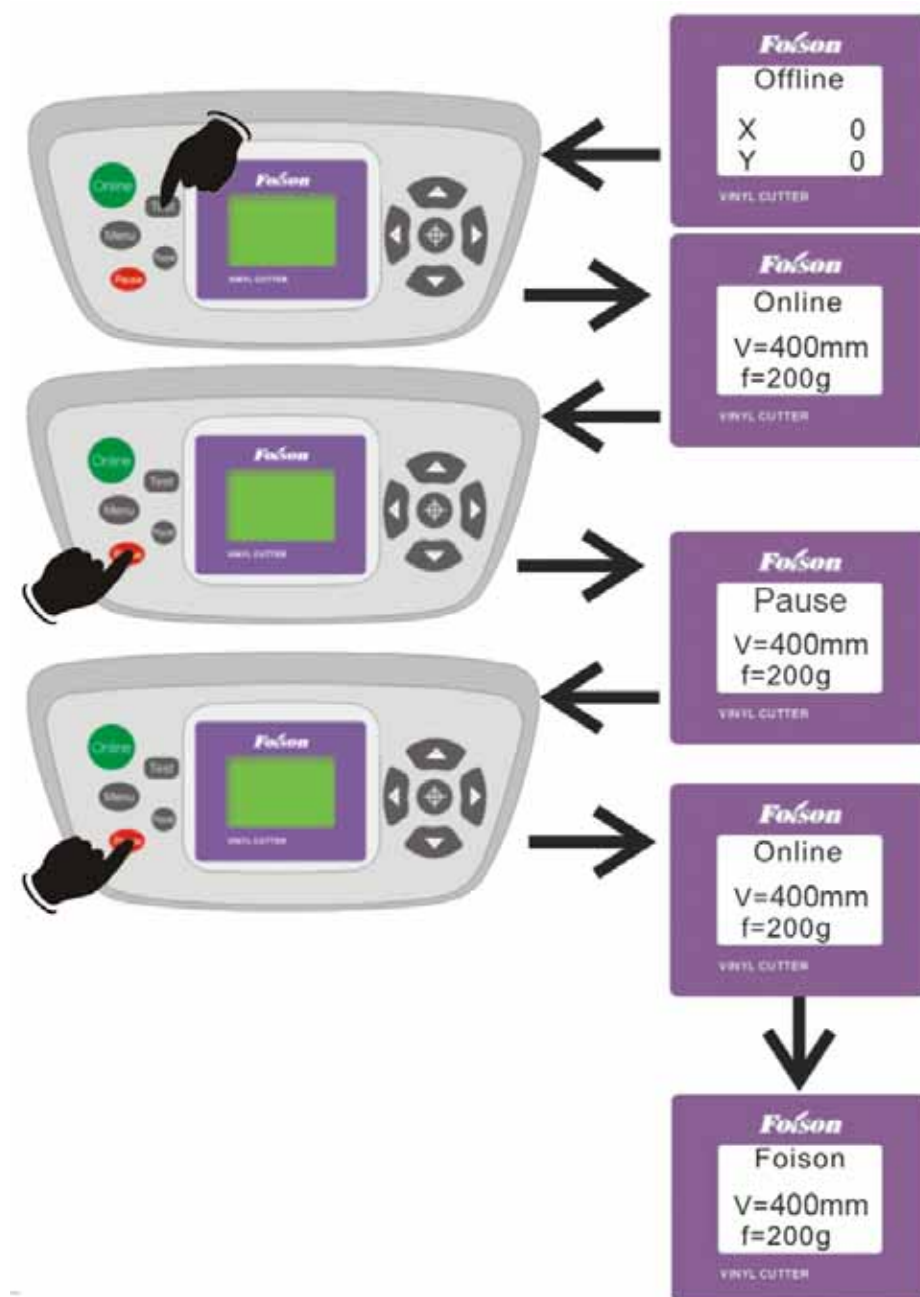
#### 6.4.5 Test Rectangle Cutting Operation

Press Test, the cutter will begin test. The Test button is effective only when the cutter is Offline. When the cutter is working, the LCD will display Online. After it finishes working, the cutter will turn back to online status, i.e.: display Foison. Shown as followings:



## 6.4.6 Pause Button Operation

Press **Test** for **three** seconds will realize self rectangle test cutting. Shown as following:

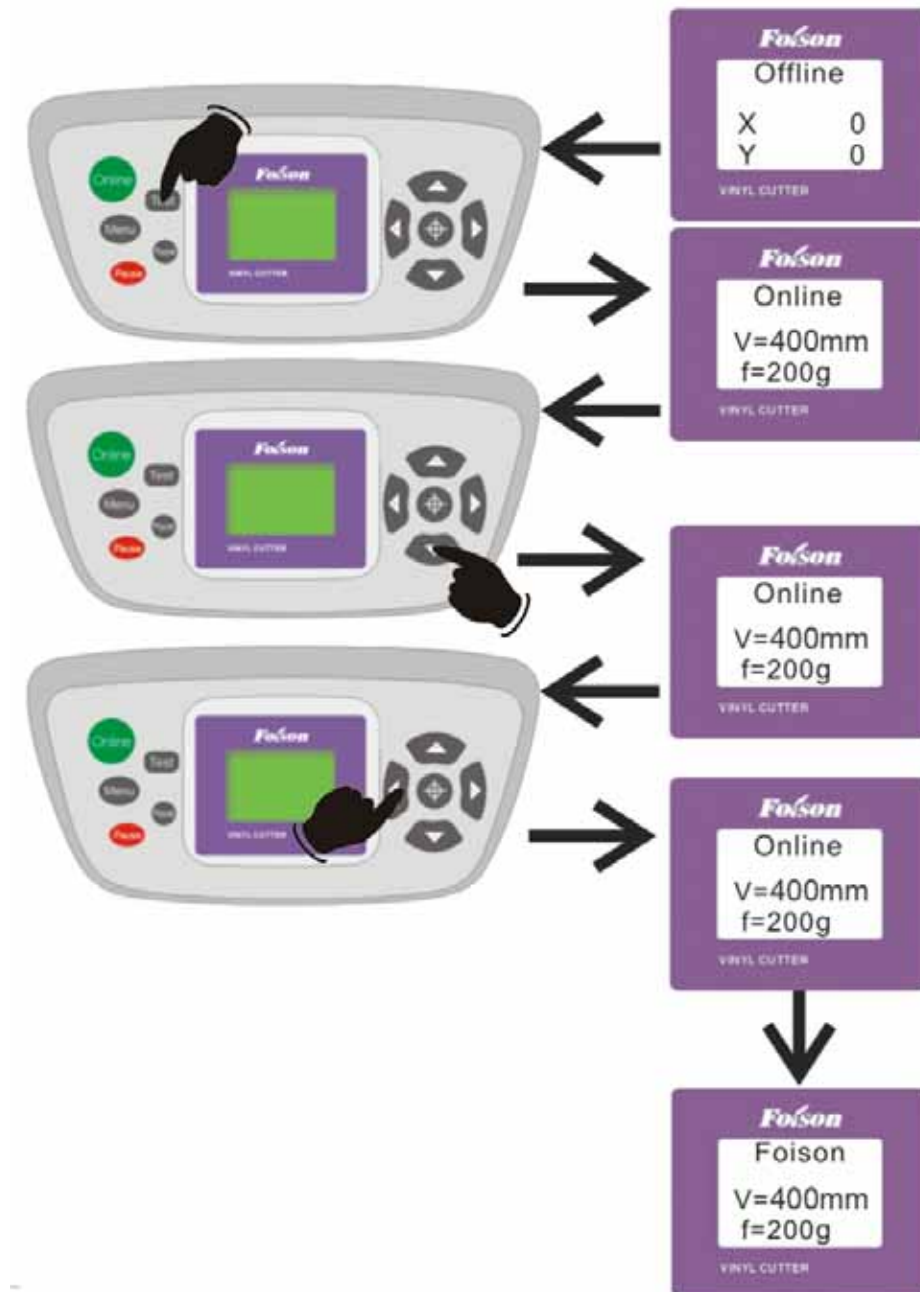


## 6.4.7 Online-change Speed and Knife Force Operation

During the operation, we can adjust the speed and knife force when the cutter is working. The instructions show as following.

Hints: The adjusted speed and knife force will be realized when the carriage finish cutting one point to another. You can press **Pause** and then change the speed and knife force while it doesn't need to close the work.

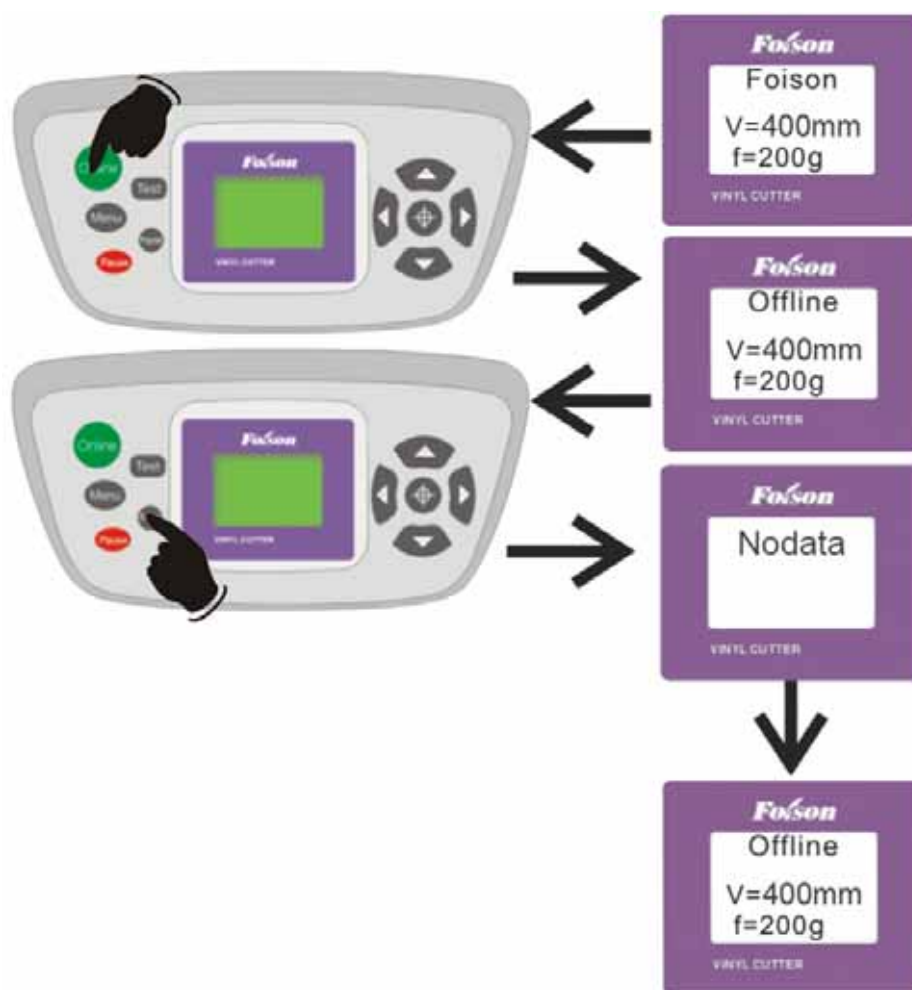
The following is an example show how to lower the speed and increase the knife force:



## 6.4.8 Repeat Function

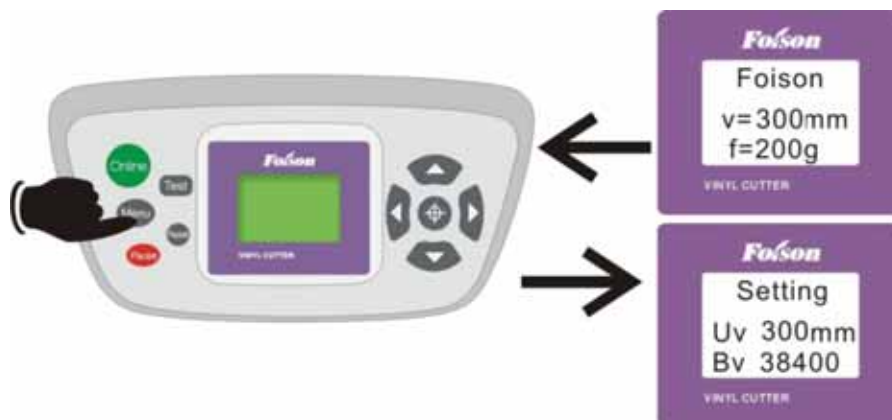
Each time after finish working, switch the cutter into offline status and press **Repeat**. The cutter will repeat the job done last time.

Hints: The main board load in flash memory, so it can not repeat the last job after the cutter switch on again. What's more, the flash memory is limited, the data shall not larger then the buffer memory. If the data is too large, it can not repeat the job as well. The LCD will display **Nodata**. Shown as followings:



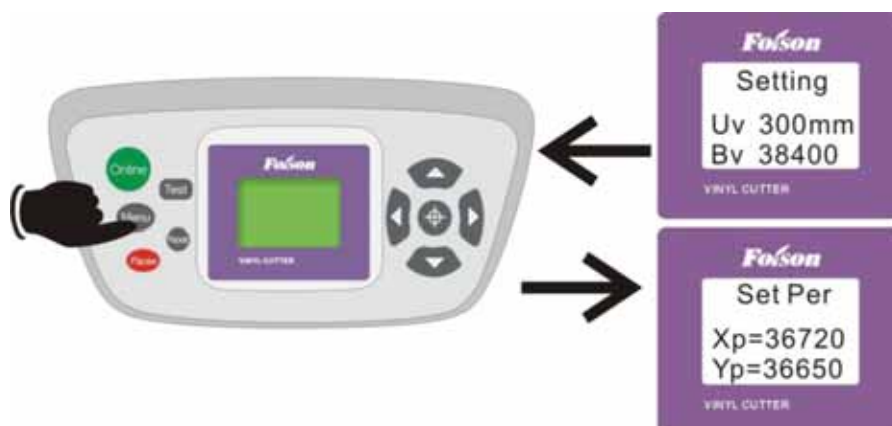
## 6.4.9 Port Setting

Press **Menu** and enter into menu setting, **UV** refers to idle speed, it can increase the carriage moving speed while it will not cutting. Press once the idle speed will increase/decrease by 50mm/s. **Bv** refers to baud rate, there're six baud rates: 57600, 38400, 28800, 19200, 14400 and 9600. The baud rate setting must be the same as computer's communication port in use baud rate's setting. We recommend the baud rate is 38400. Shown as followings:

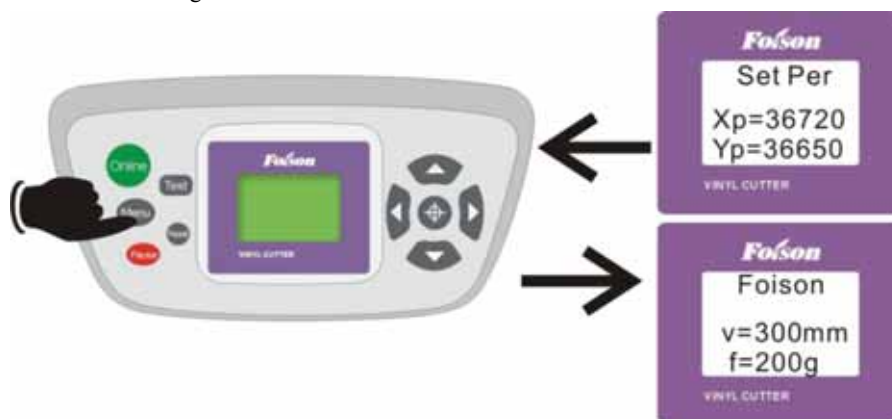


## 6.4.10 X, Y Scale Setting

Press **Menu** once again and enter into **Set Per** setting. Xp and Yp refer to cutting scale. The purpose is to set the scale from PC and output file into 1:1 (If there's any error between the actual output and the software setting, please adjust Xp and Yp. The default values are Xp=36720, Yp=36650) Shown as following:




**6.4.11** After the parameters are set, press Menu, the LCD will return to original screen display. Shown as followings:

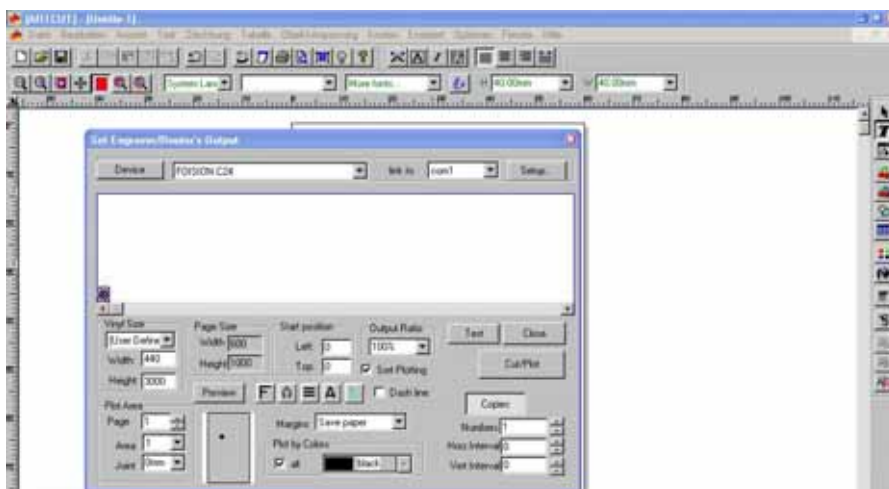


## Chapter Seven Print Output

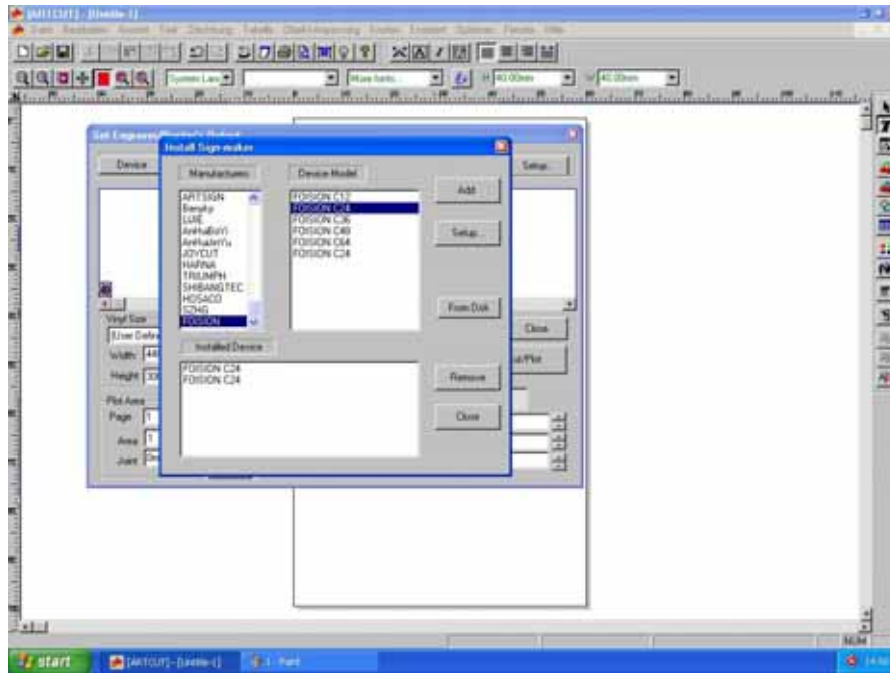
1. When all parameters are well set, switch the cutter into online status.
2. Install the necessary software. (C series cutter is compatible with standard HPGL, DMPL code. So it is compatible with many software, if you need to obtain the detailed list, please contact to our Technical Department.)
3. In the software setting, please note that both baud rate and port setting shall be identical with the cutter. If you have any questions please refer to Appendix or contact us directly. Please refer to the relevant setting please refer to the relevant software user manual.

### 7.1 ARTCUT Output Parameter and Port Setting

Click  Cut/Plot shortcut button will pop up a dialogue, shown as following:



■ Click **Device** and select the cutter manufacturer and model, shown as following:



Click **Setup**, set Communication Port and Baud Rate on the dialogue **Serial Port Setting**. Shown as following:



Hints: Please refer to Appendix to check out the way of COM and Baud Rate setting.

### 7.2 Compensation Setting

When the cutter need to cut, the “**Plotter Compensation**” must be selected. In general the **Plotter Compensation** value is round 0.85 and sharp angle compensation is round 0.35.

If it cuts smaller than 1cm character, it must select **Sharp Angle** so as not to make character

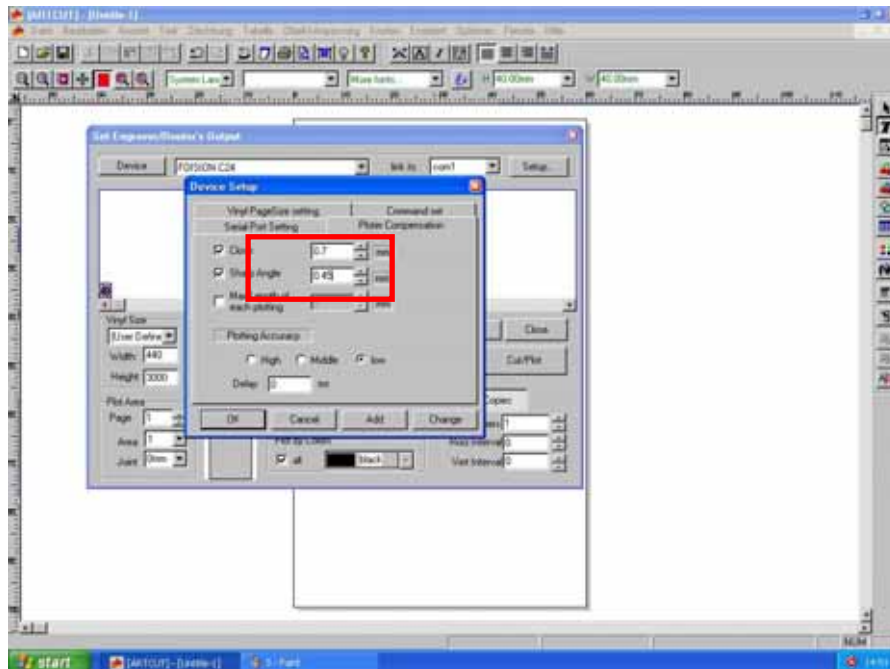


deform.

The values shall be set according to plotter pen divided from the center. Most plotter can be 0.35.

Note that if **Sharp Angle** is selected, the plotting time will be longer.

The way is: set **Close** and **Sharp Angle** well in the “**Plotter Compensation**” option, shown as followings:





## Chapter Eight Troubleshooting

### 8.1 Question: Will the character below 1CM be deformed?

Answer: when graving small characters, please set sharp-angle compensation in the software, for example, in ArtCut plotting software:

- 1、Click “**Plotting Output**” once, a plotting output will pop up.
- 2、Click “**Set**” once, a plotting output picture will pop up
- 3、Click “**Compensation Setting**”, a dialog box will pop up
- 4、Select “**Sharp-angel Compensation**”, adjust the value to required lever.

The compensation ranges within 0.1-0.9, more often we set it to be 0.35. in addition, the plotting speed of the cutter shall be set below 200.

### 8.2 Question: why does zigzag happen to the cutter?

Answer: to cut small glossy character with high requirement for precision, the speed shall not exceed 200. In most cases, the speed at the shift 200-400 is favorable. To cut big characters of large quantity with shortest time, the speed can be 500, but since step distance of motor is so long that evidence zigzag occur. Therefore, you should set the speed to specification situation.

### 8.3 Question: why do the paper deviate when it runs by a large margin?

Answer: the paper feed bracket containing paper roll shall be completely parallel to paperweight wheel, for big roll of materials, loosen it prior graving to prevent excessive obstruction when plotting or graving. For the machine with four paperweight wheels, when plotting big image or characters back and forth, use the two paperweights wheels at sides instead of press the four down simultaneously. Unequal abrasion of the two wheels also may result in deviation of the paper, in worse case replacing wheels is needed.

Note: The paperweight wheels should press on the axis of bearing Y rotation, instead of pressing the seat of bearing Y.

### 8.4 Question: why does lock up happen in plotting output?

- Answer: 1, exterior input voltage is too low, the plotter will restart thus lock up happen
- 2、When disturbance of exterior input voltage is too high, lock up may happen, to resolve it you can use purified regulated power source

### 8.5 Question: why does the machine feel tingle?

Answer: the machine might be improperly grounded, make sure central line of the power source grounded

**8.6 Question: why does the job feel not smooth with sharp-angle raised when plotting?**

Answer: 1. The protruding length of knife top is too long, please adjust it as required  
2. The knife is abraded, replace it.

**8.7 Question: No LCD display or a black row of blocks are displayed?**

Answer: 1. In case of no display, check whether the power work well  
2. If black blocks are displayed, check whether voltage is at required level. If troubles remain after the above operation, please contact maintenance center

**8.8 Question: why can not some characters close in strokes when it is plotting?**

Answer: Because the knife of the plotter is eccentric knife with a eccentric value, to resolve it, set "closing compensation" in the software. For example: in ArtCut software:

- 1、Click **Plotting Output** once, a plotting output picture will pop up
- 2、Click **Set** once, a picture of setting plotter will pop up.
- 3、Click **Compensation Setting** a dialogue box will pop up
- 4、Select **Closing Compensation**, adjust the value to required level, generally the value is set to be 0.85.

**8.9 Question: why the machines have missed some pave of letter when cutting?**

Answer: 1. Check the machine if it presses enough  
2. Reinstall the software  
3. Chook the head of the knife  
4. If the problem is still in existence, please contact with repair center

**8.10 Question: how do we maintain the cutter?**

Answer: Folsion series cutter all employ upscale oil bearing from Japan, no oil is needed even it works for a long time.

After operation everyday, clean the dust with soft brush. The glue remaining in engine base can be cleaned with alcohol. If frequently operated in dusty environment above two years, please have maintenance technicians clean the dust in machine. If plotting precision degrades, the maintenance of running parts are desirable (firming and replacing the abraded parts).

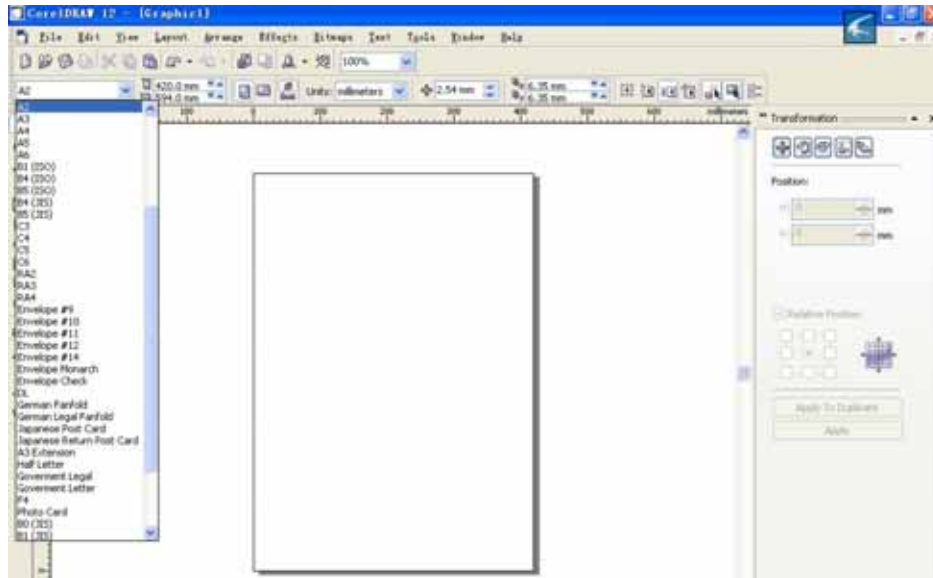
## Chapter Nine Appendix

### Appendix 1

#### CorelDraw Output

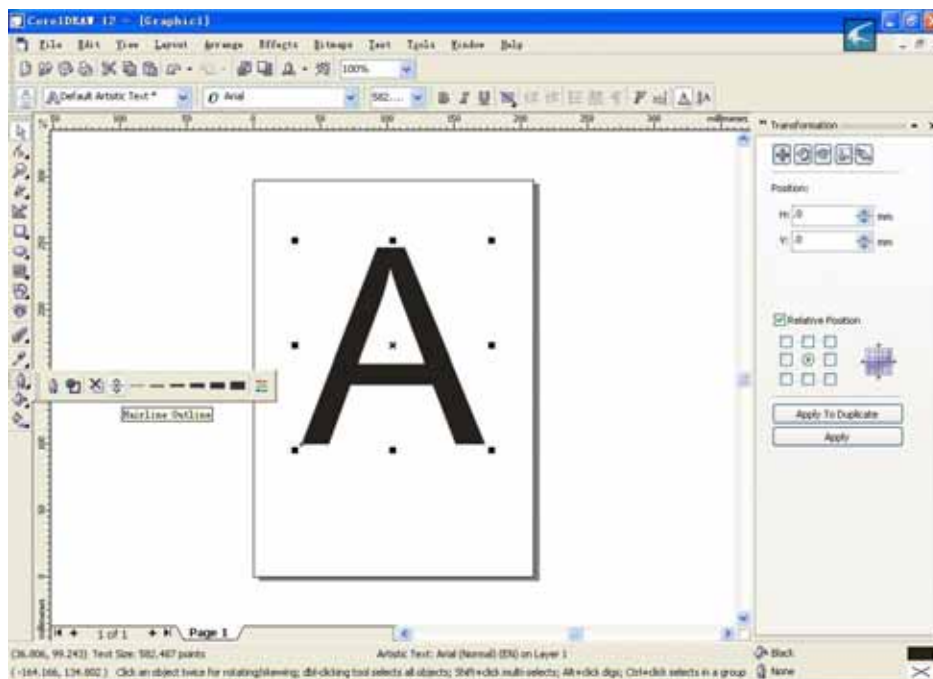
Open CorelDraw software, we can adjust the edit size according to the cutter's working size.

Shown as following:

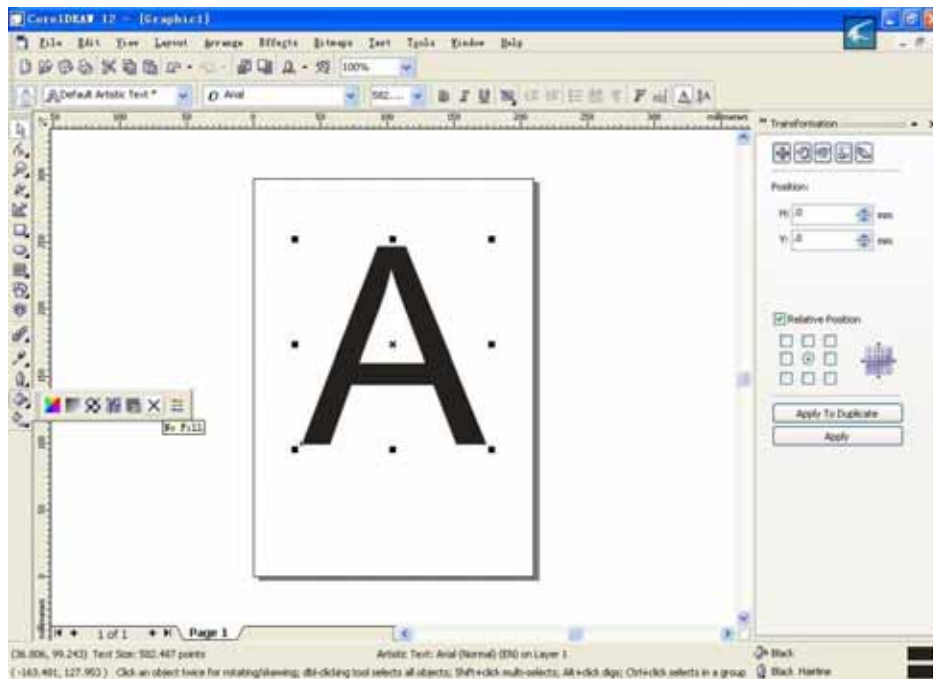


Next input characters on the edit size. It needs to change the input physical font into frame font.

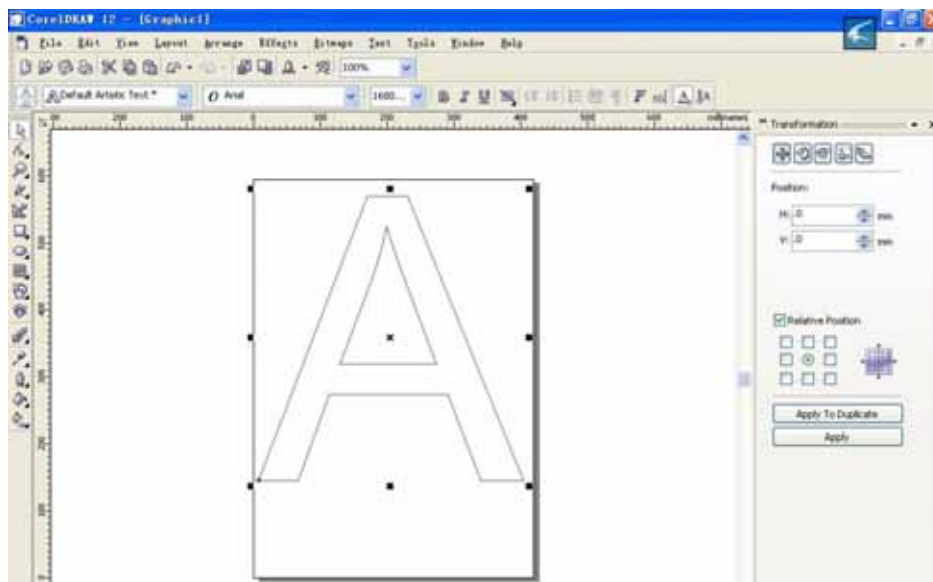
In that case the cutter can out put frame font. Next is to outline the character. Use **Outline Tool** and select **Hairline Outline**. Shown as following:



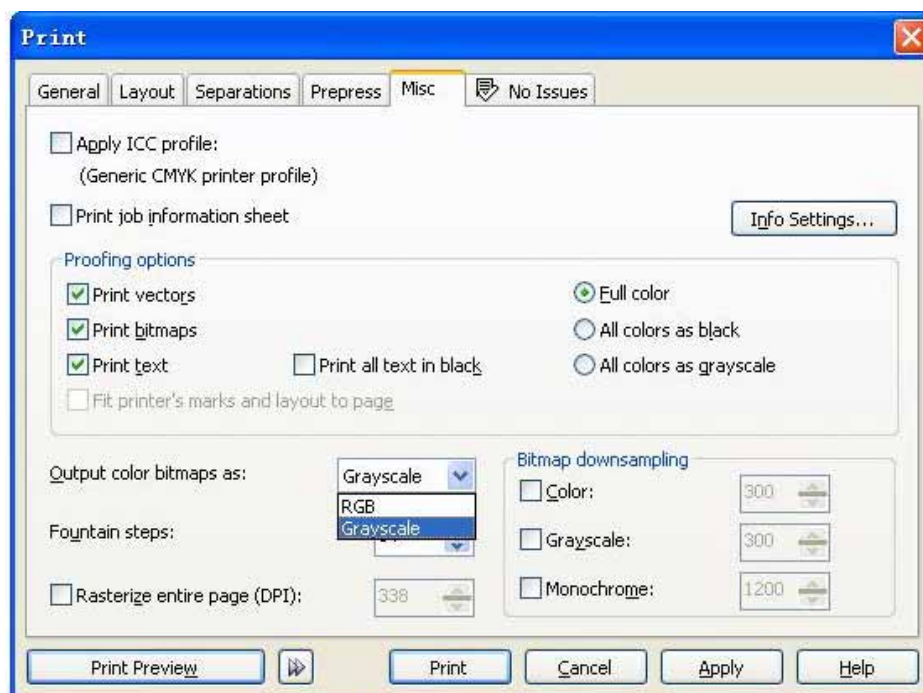
Next remove the filling by using **No Fill**, shown as following:



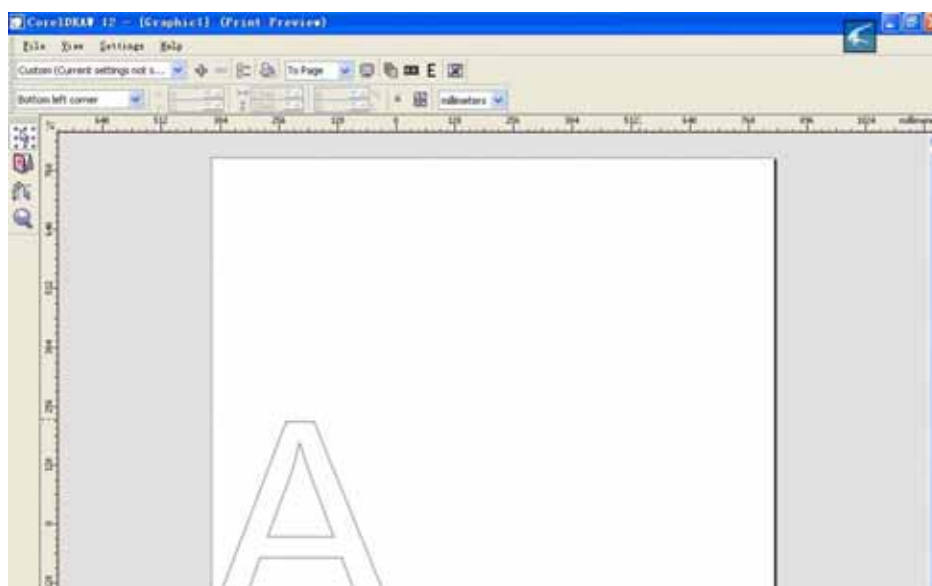
Then see the removed effect, shown as following:



Select **Print** and set Print setting parameters, shown as following:



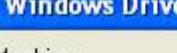
Next preview the print output, shown as following:



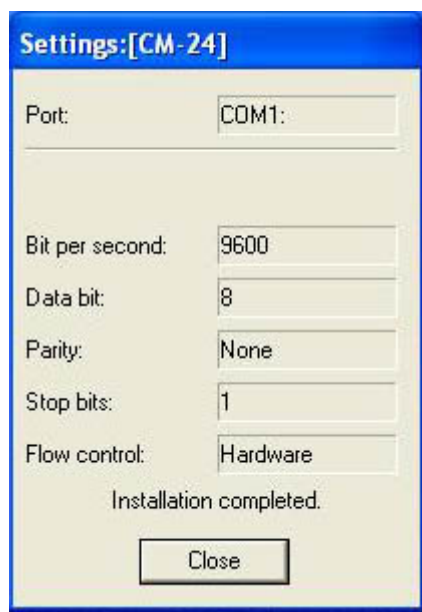
It can output now. Note that set well the communication port otherwise it is unable to output.

**CorelDraw Software Output**

The screenshot shows a Windows XP desktop with a file explorer window titled "Roland RWD-029". The address bar indicates the path: "D:\Documents and Settings\Bright Shaw\Desktop\roland printer driver\roland2000\Roland RWD-029". The left sidebar contains "File and Folder Tasks" and "Other Places". The main pane displays a grid of files, including various .BPD and .RPO files. A tooltip is visible over a file named "RDGCM1UI...", showing details: "Description: Driver Installer", "Company: Roland DG Corporation", "File Version: 1.8.0.0", "Date Created: 2006-11-23 16:22", and "Size: 100 KB".

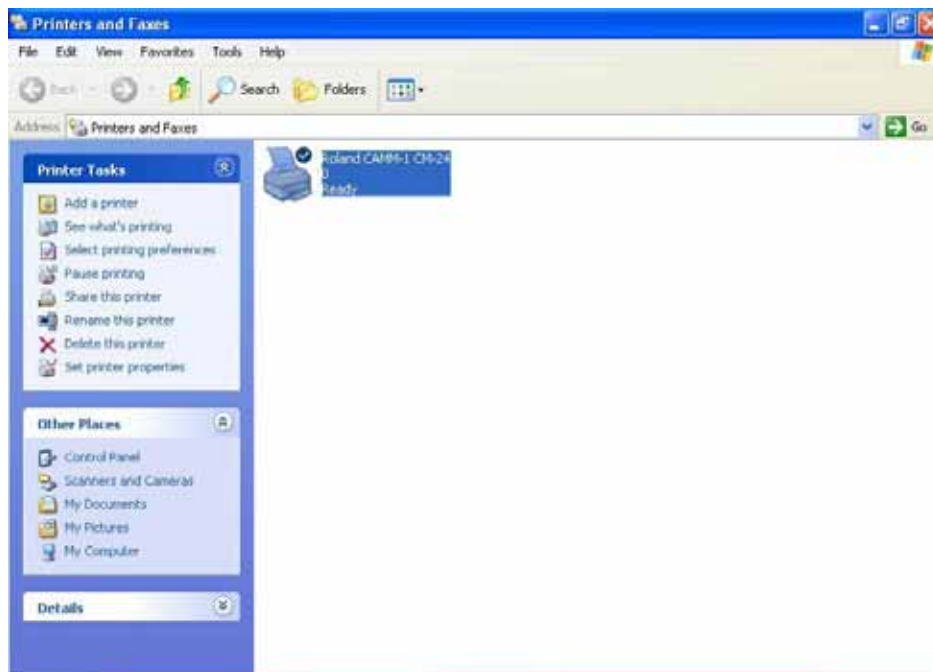


But if it's **COM2**, selects **COM2**. Click **OK** and enter next step, shown as following:



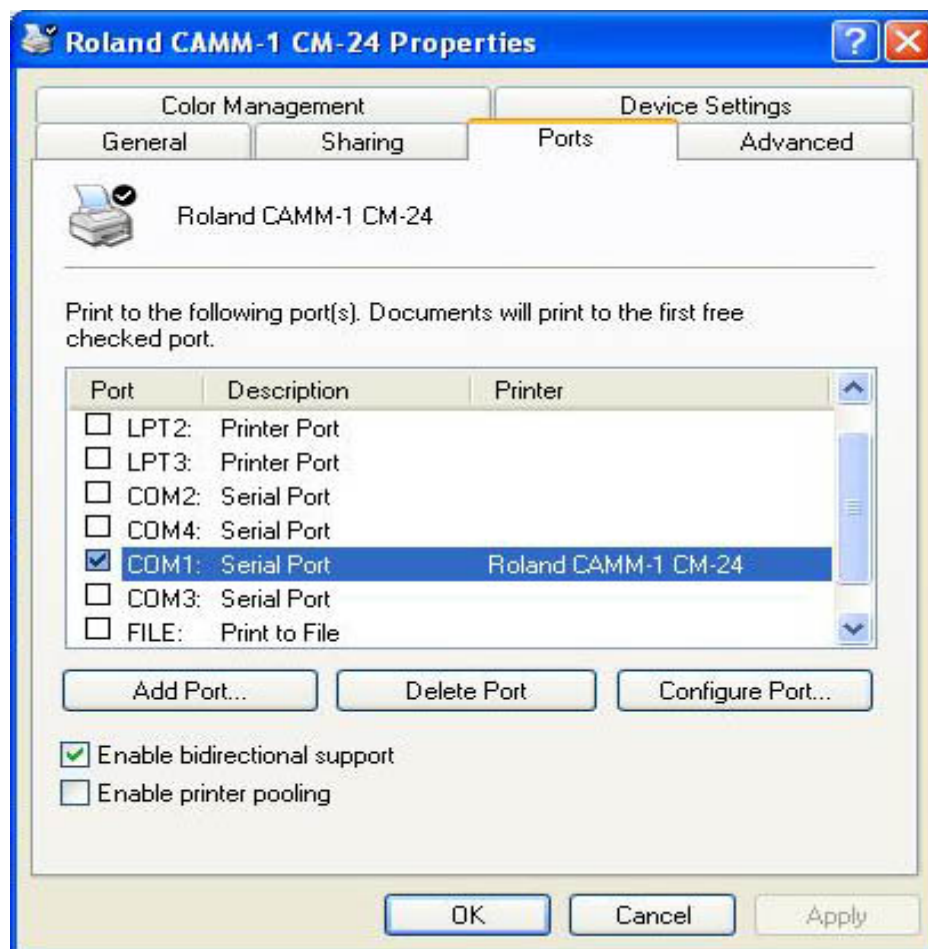
Ignore **Bit per second** and **Flow control** options, they will be introduced latter. Click **Close**.  
The driver is well-installed.

2) Enter Printer and Faxes setting of the PC, shown as following:





Set CM-24 as Default Printer. Click right button, choose Properties, will appear the following:





Select the communication port that identical with cutter that connects to PC port. After selecting the port, click **CONFIGURE PORT** and set other parameters, shown as following:



The **Bits per second** option is used to set baud rate. The baud rate **MUST** be the same in both software and cutter, otherwise it can not output. Please set **Data bits, Parity, Stop bits, Flow control** according to the above image. After that, click **OK** and finish the setting.

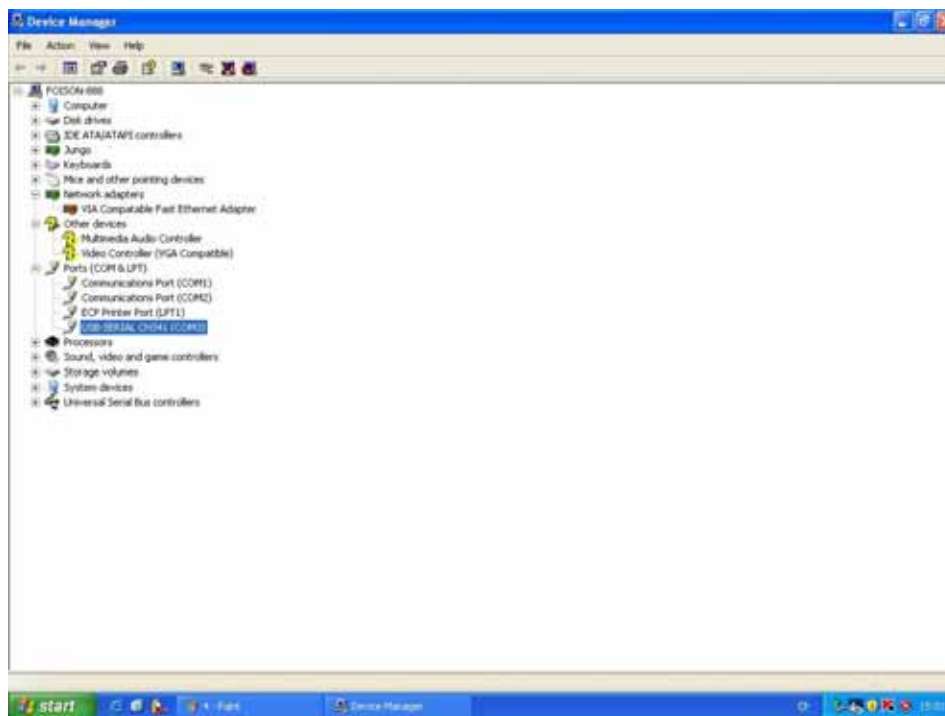
( ≡ ) Then open CorelDraw, edit some files and try the output the file. The way of output file from CorelDraw is just as that print a document from a normal printer.

## Appendix 3

### Port Setting and Replacement

After the USB driver is well-installed, switch on the cutter, the computer will indicate that new device was found and it will automatically install the driver for the cutter. Set the port parameter according to the following way:

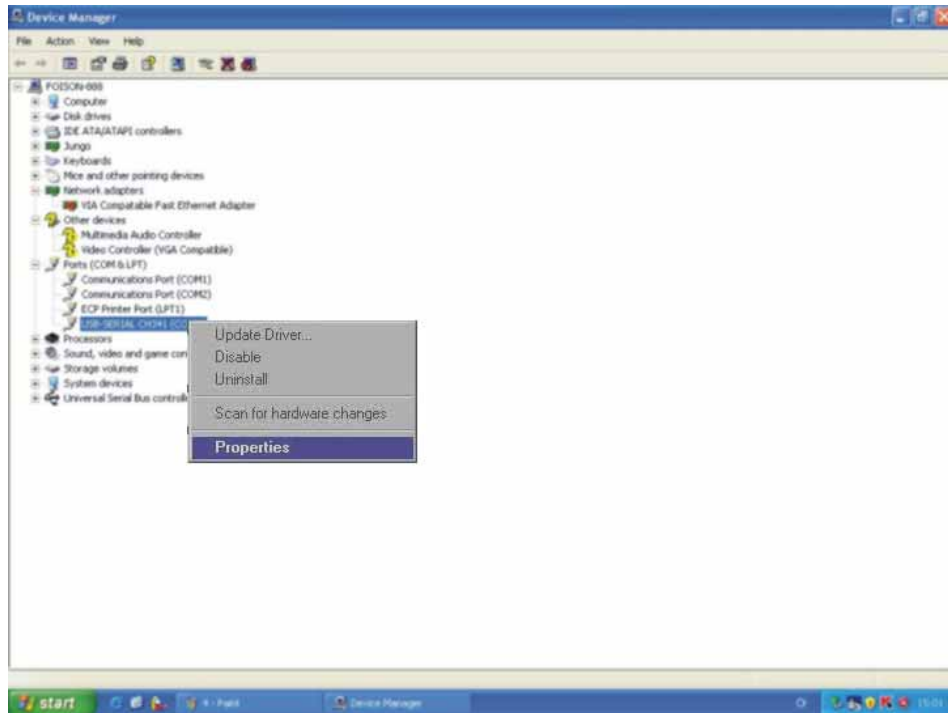
Select My Computer – (click the right button) – Properties – Hardware – Device Manager, then you will see the followings:



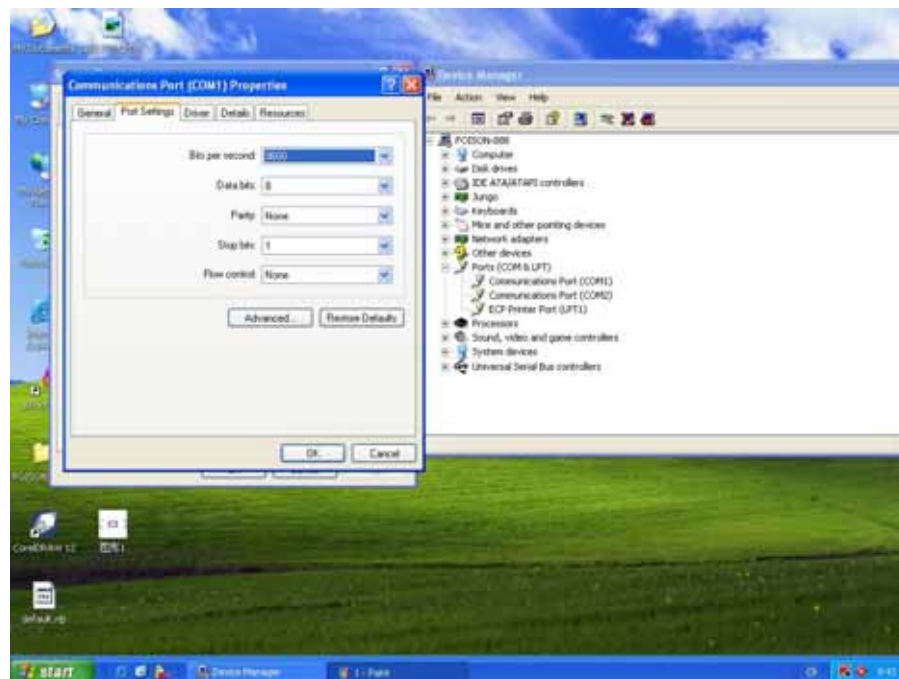
In the figure it shows **USB-SERIAL CH341(COM3)**. This is the USB port parameter. Please note that select the correspondent. This is the USB port parameter. Please note that select the correspondent port in the software.

If the software only has COM1 and COM2 selectable, please follow the following instructions to change the port parameter:

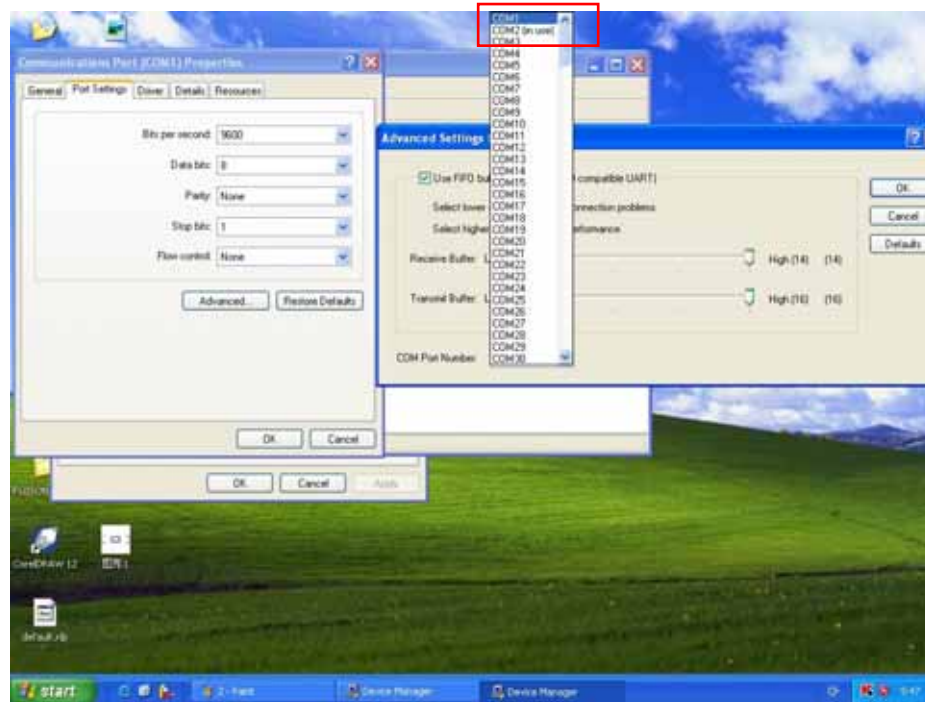
- 1) Click the mouse's right button and select **Properties**, shown as followings:



2) Select **Port Settings** options



3) Click **Advanced** and enter port selection, shown as followings, then click **COM Port Number**.



There are many ports selectable. Note that if the port is using, it will mark "In Use". We can choose other ports that are not in use. After selecting the port, the USB port will set as the new selected port. If the port is the same as the software setting, the cutter can transmit data to computer.

Hints: If both COM1 and COM2 are in used, we can repeat the previous operation, set other COM1 and COM2 in-use device to other port. Then set USB port parameters into correspondent parameters.